

Amendments to the Claims

This Listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-72. (Canceled).

73. (Previously presented) A method for performing an immunodiagnostic test for a veterinary disease in an animal comprising:

a) measuring a resonant frequency of a piezoelectric (Pz) crystal comprising an electrode on which crystal is immobilized an antigen from an infectious agent associated with the veterinary disease, or an antibody specific for an antigen from said infectious agent;

b) contacting said crystal with a biological specimen from said animal to be tested, wherein said Pz crystal was previously used in a test on a different biological specimen which was negative for said infectious agent and wherein said contacting occurs without a prior washing step following the negative test;

c) measuring a resonant frequency of said crystal following step (b);

d) comparing the resonant frequency measured in step (a) with the resonant frequency measured in step c) wherein if the difference between the two frequencies is equal to or greater than a cut-off threshold value then said biological specimen is positive for the presence of said infectious agent.

74. (Previously presented) The method of claim 73, wherein said infectious agent is associated with Salmonella enteritidis (SE) or PRRSV disease.

75. (Previously presented) The method of claim 73, wherein said antigen is a recombinant antigen.

76. (Previously presented) The method of claim 73, wherein said infectious agent is a bacterium or a virus.

77. (Previously presented) The method of claim 73, wherein following immobilization of said antigen or antibody in step (a), said crystal is contacted with a blocking reagent.

78. (Previously presented) The method of claim 73, wherein said Pz crystal comprises an AT-cut crystalline quartz crystal.

79. (Previously presented) The method of claim 78, wherein said electrode comprises silver or gold.

80. (Previously presented) The method of claim 78, wherein said Pz crystal further comprises an oscillator circuit capable of electrically stimulating said Pz crystal to oscillate at its inherent resonant frequency.

81. (Previously presented) The method of claim 73, wherein said resonant frequencies are measured using a universal counter.

82. (Previously presented) The method of claim 73, wherein said antigen or antibody is immobilized by a method selected from a group consisting of 1) physical adsorption onto a bare metal electrode of said crystal, 2) physical adsorption onto a metal electrode of a hydrophobic polymer modified crystal, and 3) covalent binding onto a metal electrode of a silane or thiol compound modified crystal.

83. (Previously presented) The method of claim 73, wherein said antigen or antibody is immobilized by dipping said Pz crystal into a solution of said antigen or antibody.

84. (Previously presented) The method of claims 73, wherein said biological specimen is diluted prior to said contacting.

85. (Previously presented) The method of claim 77, further comprising washing steps

following step (a), the step of blocking, and step c) wherein said washing is with a physiological buffer comprising a detergent.

86. (Previously presented) The method of claim 85, wherein said physiological buffer is a phosphate buffered saline.

87. (Previously presented) The method of claim 77, wherein said blocking reagent is a non-active protein.

88. (Previously presented) The method of claim 87, wherein said blocking agent is bovine serum albumin or casein buffer.

89. (Previously presented) The method of claim 77, wherein said blocking reagent is applied by a dip technique or a drop technique.

90. (Previously presented) The method of claim 73, wherein said contacting with a biological specimen is performed in a liquid phase or in a vapor phase.

91. (Previously presented) The method of claim 73, wherein said cut-off threshold is defined as the mean value of negative controls plus three times the standard deviation.

92-93 (Canceled)

94. (Previously presented) The method of claim 74, wherein said antigen comprises a peptide of SEQ ID NO:2.

95-98. (Canceled)

99. (Previously presented) The method of claim 73, wherein the method further comprises the step of regenerating a used Pz crystal coated with I) a bound antigen or ii) a bound antibody by washing with a buffer containing boric acid/KCl-NaOH to remove any protein bound to said antigen or antibody while not removing said antigen or antibody thereby allowing said Pz crystal with bound antigen or antibody to be reused.

100. (Previously presented) The method of claim 73, wherein the method further comprises the step of regenerating a used Pz crystal by washing with dichromate acid thereby removing any bound protein and any bound antigen to produce a clean crystal to which new antigen can be bound.

101 - 102. (Canceled)